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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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7590

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EXAMINER

VO, TUYET THI

ART UNIT

PAPER NUMBER

2821

DATE MAILED: 07/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/985,919

Applicant(s)

CHOI, SUNG CHUN

Examiner

Tuyet Vo

Art Unit

2821

-- The MAILING DATE of this c mmunication appears n the cover sheet with the correspondence address --

Peri d f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 16-24 is/are rejected.
- 7) ☒ Claim(s) 14 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 May 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

DETAILED ACTION

Remarks

The indicated allowability of claims 9-11 and 4-6, 13-18 are withdrawn in view of the newly discovered reference(s) to reject claims 1-13 and 16-24. Rejections based on the newly cited reference(s) follow.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the reset period, the address period and the sustain period must be shown or the feature(s) canceled from the claims 12-20. The features only shows on the prior art drawings (Fig. 4) while not illustrated in the invention drawings (Figs. 6-11). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. Page 12, line 12, delete "save" and insert —same—to correct a typographical error.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 24 recites the limitation "The method of claim 23" in line 1 refers to the method claim 23. However, claim 23 discloses an apparatus of the invention. There is insufficient antecedent basis for this limitation in the claim. The dependent claim 24 is also a hybrid claim, not clearly distinct a type of claim, a method or apparatus.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-3, 7, 8, 12, 13 and 16-20 are rejected under 35 U.S.C. 102(b) as being anticipated by the admitted prior art cited by the applicant.

Regarding claims 1-3, 7 and 8, the admitted prior art discloses a plasma display panel (Figs. 3-5) comprising:

a scan/sustain electrode (32Y) formed at a peripheral portion of a discharge cell;

a common sustain electrode (32Z) formed to oppose the scan/sustain electrode at the peripheral portion of the discharge cell;

a first trigger electrode (34Y) formed to be adjacent to the scan/sustain electrode (32Y);

and

a second trigger electrode (34Z) formed adjacent to the common sustain electrode (32Z);

wherein the first and second trigger electrodes (34Y, 34Z) formed between the scan/sustain

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electrode (32Y) and the common sustain electrode (32Z). The first and second trigger electrodes are electrically connected to each other when AC pulses alternating applied to the trigger electrode pair (34Y, 34Z) (pages 8 and 9, paragraph [0024]).

Regarding claims 12, 13 and 16, the admitted prior art further discloses a method for driving a PDP constructed in a manner as above, the method comprising the step of alternating applying different AC pulses having a predetermined voltage to the scan/sustain electrode, the common electrode and the trigger electrode pair synchronously during the sustain period (Fig. 4), wherein the second and the third sustain pulses applied to the first and second trigger electrodes have the same voltage which is lower than the first sustain pulse voltage (Fig. 4).

Regarding claims 17 and 18, the admitted prior art also discloses the second and third sustain pulses having lower voltage values than the first sustain pulse, wherein the pulses being synchronized (Fig. 4).

Regarding claims 19 and 20, the admitted prior art also discloses a reset pulse is supplied to the second trigger electrode of the discharge cell during the reset period, scan pulses are sequentially supplied to the first trigger electrode during the address period and data pulses synchronized with the scan pulses are supplied to an address electrode formed in a lower substrate opposing the upper substrate (Fig. 4).

7. Claims 1, 4-6, 9-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Ha et al. (US Pat. 6,255,779), hereinafter Ha.

Regarding claims 1 and 9, Ha discloses color plasma display panel (Figs. 5A and 5B) comprising:

- a first trigger electrode (18) formed at a peripheral portion of a discharge cell;
- a second trigger electrode (18A) formed to oppose the first trigger electrode at the peripheral portion of the discharge cell;
- a scan/sustain electrode (S) formed to be adjacent to the first trigger electrode (18); and
- a common sustain electrode (C) formed to be adjacent to the second trigger electrode (18A), wherein the scan/sustain electrode (S) and the common sustain electrode (C) formed between the first (18) and second trigger electrodes (18A).

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Regarding claims 4-6, 10 and 11, Ha discloses substantially the claim invention as notice above and further teach the first and second trigger electrodes, BUS electrodes, are electrically connected.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior arts are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 21, 23 and 24 are rejected under 35 U.S.C. 103 (a) as being unpatentable over the admitted prior art cited by the applicant.

The admitted prior art discloses a plasma display panel, comprising:

a scan/sustain electrode (32Y) formed in a discharge cell;

a common sustain electrode (32Z) formed near the scan/sustain electrode in the discharge cell;

a first trigger electrode (34Y) formed at a first distance from the scan/sustain electrode (32Y); and

a second trigger electrode (34Z) formed at a second distance from the common sustain electrode (32Z), a distance between the first and second trigger electrode formed a third distance, wherein the trigger electrodes formed between the scan sustain electrode and the common sustain electrode.

However, the admitted prior art does not explicitly disclose the different among these distances.

It would have been an obvious matter of design choice leaving a specific distant arrangement among the electrodes up to designer for particular application.

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Such implementation is considered as a routine skill in the art for optimum the performance of the plasma image.

10. Claim 22 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Ha.

Ha discloses a plasma display panel, comprising:

a scan/sustain electrode (S) formed side by side on an upper substrate so as to be positioned respectively toward both ends of a discharge cell;

a common sustain electrode (C);

a first trigger electrode (18) formed side by side to be outwardly adjacent to the scan/sustain electrode (S) for establishing a gap between;

a second trigger electrode (18A) formed side by side to be outwardly adjacent to common sustain electrode (C) for establishing a gap between; and

a gap formed between the scan sustain electrode and the common sustain electrode.

However, Ha does not explicitly disclose different distances among these gaps.

It would have been an obvious matter of design choice leaving a specific distant arrangement among the electrodes up to designer for a particular application. Such implementation is considered as a routine skill in the art for optimum the performance of the plasma image.

Allowable Subject Matter

11. Claims 14 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to provide a method for driving PDP comprising steps of supplying sustain pulses to the first trigger electrode having voltage value higher than that of the second trigger electrode while it is lower than the voltage pulse applied to the scan/sustain electrode as required in claim 14 or the first trigger electrode having voltage value lower than that of the second trigger

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electrode while it is lower than the voltage pulse applied to the common electrode as required in claim15.

Citation of pertinent prior art

13. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure.

Kang et al. (US Pub.2001/0011974 A1) discloses a plasma display panel and driving method thereof.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuyet Vo whose telephone number is 703 306 5497. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 703 308 4856. The fax phone numbers for the organization where this application or proceeding is assigned are 703 308 7722 for regular communications and 703 308 7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0956.



Tuyet Vo

June 26, 2003